

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Dany Sylvain

Examiner: Phuong, Dai

Serial No. 10/693,540

Art Unit: 2617

Filed: 10/24/2003

**For: CALL TRANSFER FOR AN INTEGRATED WIRELINE AND WIRELESS  
SERVICE USING A TEMPORARY DIRECTORY NUMBER**

Mail Stop Amendment  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

**DECLARATION UNDER 37 C.F.R. § 1.131 OF DANY SYLVAIN**

1. My name is Dany Sylvain and I am an employee of Nortel Networks, Inc. (hereinafter "Nortel"), a wholly owned subsidiary of the assignee of the present application. I have been employed by Nortel since 1981. As part of my obligations under my Employment Agreement, I am obligated to assign any rights to inventions to the present assignee.
2. I am the inventor of Patent Application Serial No. 10/693,540 entitled "CALL TRANSFER FOR AN INTEGRATED WIRELINE AND WIRELESS SERVICE USING A TEMPORARY DIRECTORY NUMBER" (hereinafter "Patent Application").
3. I have reviewed claims 1-32 presently pending in the Patent Application (hereinafter "Present Invention").
4. At least as early as April 23, 2003, I conceived of the Present Invention as evidenced by the Invention Disclosure entitled "WLAN Call Handoff to Wireless Using Dynamically Assigned Temporary Number," which is attached to this Declaration as Appendix A. The Invention Disclosure specifically referenced and built upon an earlier invention disclosure that I submitted. I conceived of the invention in the earlier submitted invention disclosure at least as early as December 19, 2002, as evidenced by an invention disclosure entitled "Simple Method to Handover WLAN Voice Call to a Cellular Network" (hereinafter "the 15795 invention disclosure"), which is attached as Appendix B. U.S. Patent Application Serial No. 10/409,290 was filed on April 8, 2003 and is directed to the subject matter of the 15795 invention disclosure.

5. On April 23, 2003, I completed the Invention Disclosure for the present Patent Application and submitted it to the Intellectual Property Law Department at Nortel. Nortel has a first in, first out policy regarding invention submissions and my Invention Disclosure was considered in the ordinary course of this policy on May 7, 2003, as evidenced by the review form attached as Appendix C.

6. Between May 7, 2003, and May 21, 2003, I spoke with Benjamin S. Withrow of the law firm of Withrow & Terranova to assist in preparing a provisional patent application directed to the Invention Disclosure. A provisional application, U.S. Serial No. 60/472,277 (hereinafter "the Provisional Application"), was filed on May 21, 2003, which included the material from the Invention Disclosure. The Provisional Application also incorporated by reference the material from the 15795 invention disclosure (U.S. Patent Application Serial No. 10/409,290). The Provisional Application fully discloses the Present Invention.

7. On June 20, 2003, I received a copy of a memo, which is attached as Appendix D, that instructed Benjamin S. Withrow of the law firm of Withrow & Terranova, PLLC to prepare and file a regular utility patent application for the Invention Disclosure that claimed priority to the Provisional Application.

8. From a period beginning prior to June 20, 2003 and continuing through October 24, 2003, I met with the attorney Benjamin S. Withrow and worked with him to prepare the Patent Application claiming the invention disclosed in the Invention Disclosure.

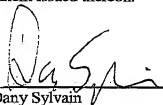
9. On July 30, 2003, I received a first draft of the Patent Application (hereinafter "First Draft") from Benjamin S. Withrow's assistant, Jennifer Alkove, as evidenced by the e-mail attached to this Declaration as Appendix E.

9. Between July 30, 2003, and August 25, 2003, I reviewed the First Draft and provided comments to Benjamin S. Withrow regarding the First Draft.

10. On or about August 25, 2003, I received a copy of a revised Patent Application and the inventor declaration and assignment documents from Benjamin S. Withrow's assistant, Jennifer Alkove, as evidenced by the email attached to this Declaration as Exhibit F.

11. Upon information and belief, the Patent Application was filed with the U.S. Patent and Trademark Office on October 24, 2003 as Serial No. 10/693,540. The Patent Application claimed priority to the Provisional Application filed May 21, 2003, and incorporated by reference the disclosure of the 15795 invention disclosure (U.S. Patent Application Serial No. 10/409,290).

13. I hereby declare that all declarations made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

  
\_\_\_\_\_  
Dany Sylvain

5/12/07  
\_\_\_\_\_  
Date

# **Appendix A**

# Invention Disclosure Submission Reply

<b>Disc No:</b>	16076RO	<b>Received Date:</b>	23 apr 2003
<b>Disclosive Title:</b>	WLAN call handoff to wireless using dynamically assigned temporary number		

## ----- Inventors -----

Global ID	Name	Work Info	Home Info
150485 1	<b>HR Name:</b> SYLVAIN, DANY <b>Known As:</b> DANY <b>Email:</b> sylvain@nortelnetworks.com <b>Mgr First Name:</b> STEPHEN <b>Mgr Last Name:</b> ELLIOTT <b>Mgr Global ID:</b> 1010825	<b>Location:</b> 3500 CARLING AVENUE NEPEAN ONTARIO K2H 8E9 CANADA <b>Location Code:</b> CAR <b>Dept:</b> 3A10 <b>Phone:</b> 3937925 <b>Ext Phone:</b> 6137637925 <b>Fax:</b> 6137653313 <b>Ext Fax:</b> 6137653313 <b>Mail Stop:</b> 04352H09 <b>Citizenship:</b> CANADA	<b>Address:</b> 6 RUE D'ANJOU GATINEAU, QC CANADA J8T 6A6 <b>Phone:</b> Q8195614981

## ----- Attachments -----

File Name	File Type	File Comments
Enhanced WLAN to wireless call handoff.ppt	Microsoft Powerpoint (*.ppt)	

<End of Attachments>

<b>Were there additional inventors involved?</b>	no	<b>Was there contractor involvement?</b>	no
<b>Name of Supervisor or Divisional Head:</b>	STEVE ELLIOTT	<b>Name of VP:</b>	SUE SPRADLEY
<b>LOB:</b>	WIRELINE NETWORKS	<b>Business Unit:</b>	TDM PORTFOLIO & SOLUTIONS DELIVERY
<b>Conception Date:</b>			
<b>Has this invention been discussed with others? If so, please complete:</b>			
<b>Inside Nortel - Whom?</b>		<b>Outside Nortel - Whom?</b>	
<b>Inside Nortel - When?</b>		<b>Outside Nortel - When?</b>	
<b>NDA?</b>	no		
<b>Are you aware of any imminent future disclosures? Please provide dates and details:</b>			

<b>Keywords for Searching:</b>		<b>Products that will use this invention:</b>	
Call handoff, WLAN, wireless, cellular, registration,		Succession, IMS, Wireless	
<b>Does this invention arise from any arrangement involving an external organization?</b>			
<b>Is this invention relevant to a Standards Activity?</b>		<b>Internal Funding Project #:</b>	
no			

### Technical Information

**Brief Description of the Invention:**

Disclosure 15795 described how to transfer a wireline/WLAN call to a cellular network to a pre-configured number associated to the handset when in cellular mode. This invention removes the dependency to assign a pre-configured number and allows the same public phone number to be used for both networks.

**Problem Solved by the Invention:**

Multiple DN and billing (one per network) simplified to one DN and bill. In addition, 15795 involved a 5-10 seconds interval to perform the handoff. By pre-registering the handset in the cellular network prior to needing the transfer allows the call handoff to be accelerated to 2-3 seconds.

**Solutions that have been tried and why they didn't work:**

Pre-provisioned DN: Required configuration work.

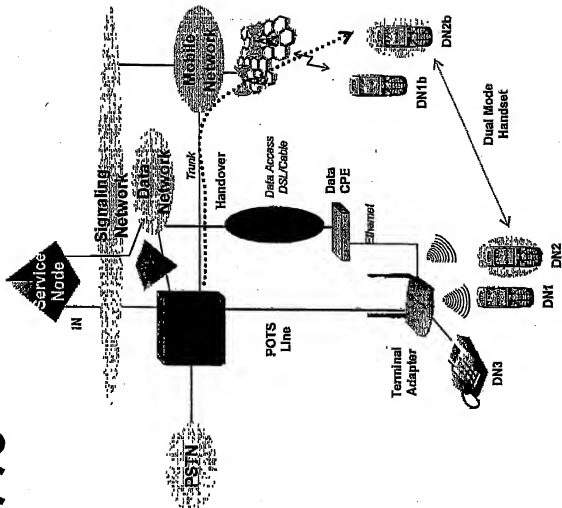
**Specific elements or steps that solved the problem and how they do it:**

See charts.

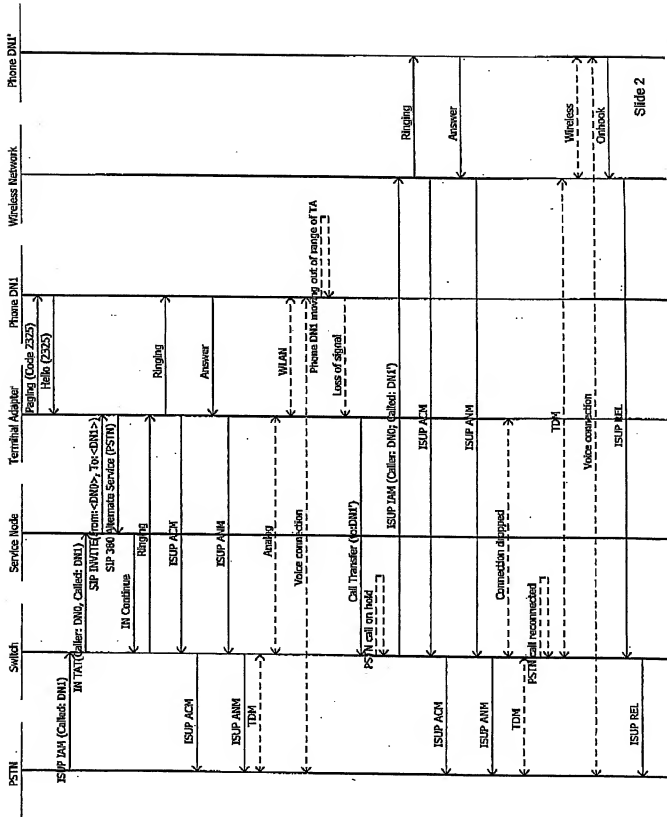
**Commercial value of the invention to Nortel and Nortel's major competitors:**

Simplified business arrangements, faster handoffs, fewer DN required, improves the value of a combined WLAN Wireless offer.

15795

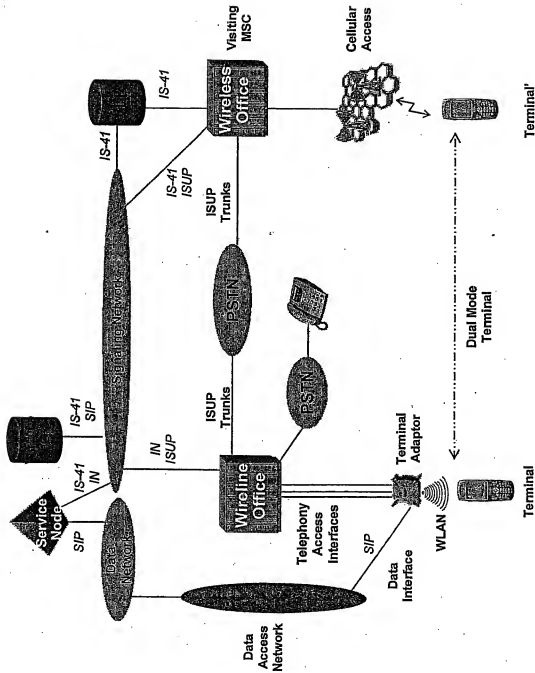


# 15795 Call flow

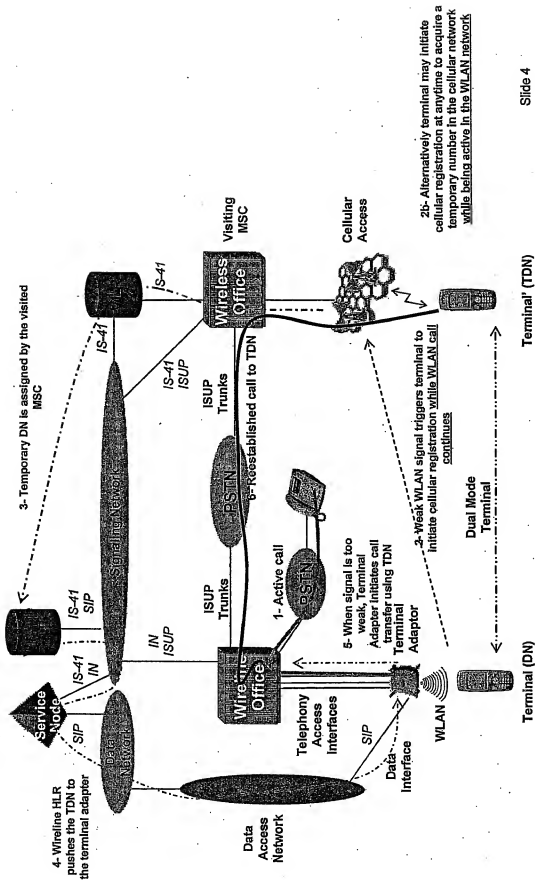




# Improved Network



# Improved Call handoff to wireless



## **Appendix B**

**Nortel Networks Confidential & Privileged Information**

**Invention Disclosure Submission Reply**

<b>Disc No:</b>	15795RO	<b>Received Date:</b>	19 dec 2002
<b>Disclosure Title:</b>	Simple method to handover WLAN voice call to a cellular network		

==== **Inventors** =====

Global Id	Name	Work Info	Home Info
1504851	<b>HR Name:</b> SYLVAIN, <b>DANY</b> <b>Known As:</b> DANY <b>Email:</b> sylvain@nortelnetworks.com <b>Mgr First Name:</b> STEPHEN <b>Mgr Last Name:</b> ELLIOTT <b>Mgr Global ID:</b> 1010825	<b>Location:</b> 3500 CARLING AVENUE NEPEAN ONTARIO K2H 8E9 CANADA <b>Location Code:</b> CAR <b>Dept:</b> 3A10 <b>Phone:</b> 3937925 <b>Ext Phone:</b> 6137637925 <b>Fax:</b> 6137653313 <b>Ext Fax:</b> 6137653313 <b>MailStop:</b> 04352H09 <b>Citizenship:</b> CANADA	<b>Address:</b> 6 RUE D'ANJOU GATINEAU, QC CANADA J8T 6A6 <b>Phone:</b> 08195614981

==== **Attachments** =====

File Name	File Type	File Comments
W-CentrexIP.ppt	Microsoft Powerpoint (*.ppt)	

<End of Attachments>

<b>Were there additional inventors involved:</b>	no	<b>Was there contractor involvement:</b>	no
<b>Name of Supervisor or Divisional Head:</b>	<b>Name of VP:</b>		
STEVE ELLIOTT	SUE SPRADLEY		
<b>LOB:</b> WIRELINE NETWORKS	<b>Business Unit:</b>	CTO/VOIP	
<b>Conception Date:</b>			
<b>Has this invention been discussed with others? If so, please complete:</b>			
<b>Inside Nortel - Whom?</b>		<b>Outside Nortel - Whom?</b>	
<b>Inside Nortel - When?</b>		<b>Outside Nortel - When?</b>	
<b>NDA?</b>	no		
<b>Are you aware of any imminent future disclosures? Please provide dates and details:</b>			

## Nortel Networks Confidential & Privileged Information

<b>Keywords for Searching:</b> VoIP, WLAN, handover, cellular	<b>Products that will use this invention:</b> DMS, Succession, CentrexIP, Meridian 1
<b>Does this invention arise from any arrangement involving an external organization?</b>	
<b>Is this invention relevant to a Standards Activity?</b> no	<b>Internal Funding Project #s:</b>

### Technical Information

#### **Brief Description of the Invention:**

A WLAN is used to provide mobile VoIP based telephony in a home zone. If the user starts moving and gets out of the WLAN home zone, the call will get dropped. To prevent this, the mobile terminal is equipped also with cellular capability and is served by an existing wireless network. As the signal strength deteriorates, bit error rate will increase and gets detected by the VoIP gateway controlling the WLAN phone. This triggers the VoIP gateway to signal to the serving telephony switch, on behalf of the user, to transfer the call to the number corresponding to the DN of the same terminal in the wireless network. At the moment of transfer, tones are inserted in the call path by the VoIP gateway to signal to the call party that the transfer will take place.

Alternatively, the user of the WLAN terminal can proactively request the call transfer to the cellular DN and switch over the mode of the terminal.

#### **Problem Solved by the Invention:**

No handoff of calls between private and public wireless network.

#### **Solutions that have been tried and why they didn't work:**

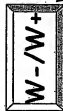
Pico cell used by cellular network but they require the same service provider for both pico and macro cells.

#### **Specific elements or steps that solved the problem and how they do it:**

See charts.

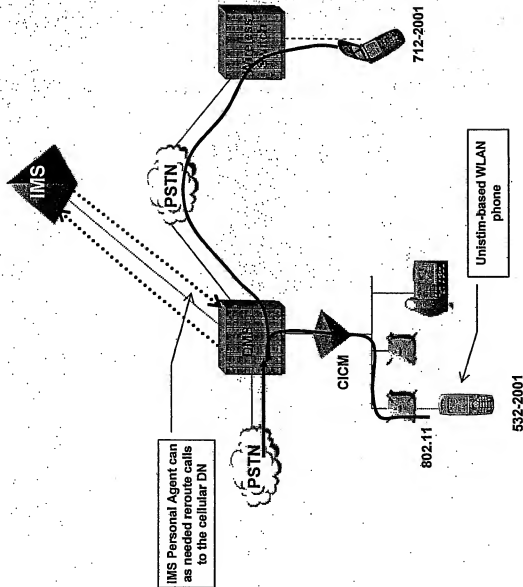
#### **Commercial value of the invention to Nortel and Nortel's major competitors:**

Allow users to have mobility from office/home to public network with minimum impact on active call. Provide synergies between wireline and wireless network solutions.



# WLAN CentrexIP

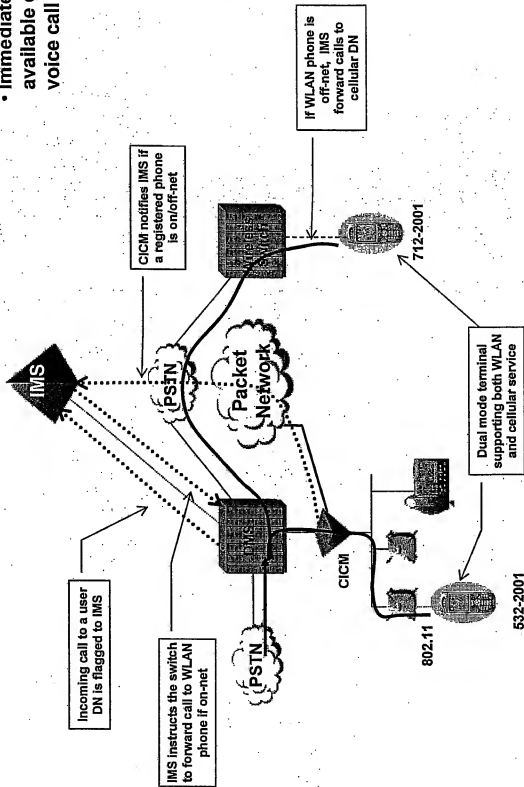
- Office mobility with full Centrex feature set





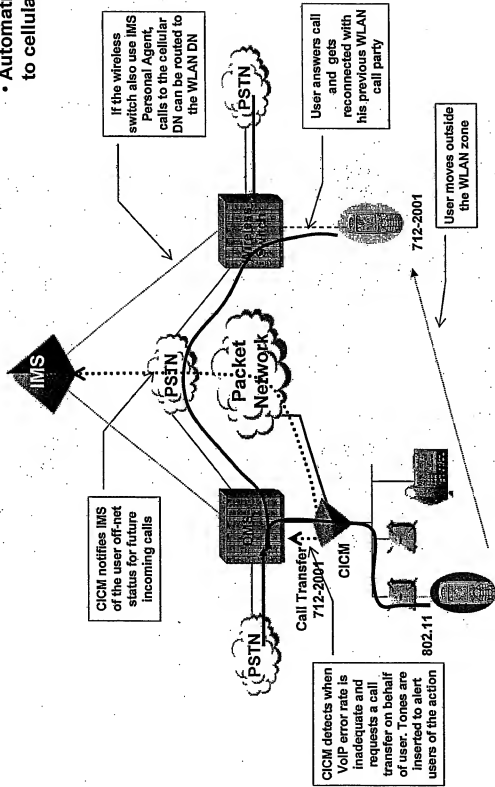
# WLAN CentrexIP Roaming

- Immediate routing to best available connection for voice call



# WLAN CentrexIP with handover

- Automatic handoff of calls to cellular as needed



532-2001



## **Appendix C**

7000-285  
271

# NORTEL NETWORKS

4006 E. Highway 54  
Dept. N237, MS D18/02/0E2  
Network Center 2  
Durham, North Carolina 27713  
Tel 919.997.3479  
Fax 919.997.6659  
rwitcher@nortelnetworks.com

www.nortelnetworks.com

John R. Witcher, III  
Senior Counsel

## NORTEL NETWORKS CONFIDENTIAL & PRIVILEGED COMMUNICATION

June 20, 2003

VIA FEDERAL EXPRESS

Benjamin S. Withrow, Esq.  
Withrow & Terranova  
201 Shannon Oaks Circle  
Suite 200  
Cary, NC 27512

Re: **Invention Docket No.: 16076ROUS01P/16076ROUS02U**  
**Title: *WLAN Call Handoff to Wireless Using Dynamically***  
***Assigned Temporary Number***  
**Target Filing Date: September 20, 2003**

Dear Ben:

Nortel Networks would like to retain you to prepare and file in the United States Patent and Trademark Office (USPTO) a utility patent application claiming priority to the above-referenced provisional application (60/472,277 filed May 21, 2003) and directed to the invention disclosed in the enclosed invention disclosure by the above-referenced filing date. The application should be prepared according to Nortel Networks guidelines in accordance with the predetermined fee we have agreed with your firm. If you are unable to perform the requested work, please advise me immediately.

In addition to the invention disclosure, an invention disclosure Review Summary document is enclosed for your consideration. We request that you contact the primary inventor, Dany Sylvain, at (613) 763-7925 within two weeks of receiving this letter. Please ensure that the inventor(s) are advised of their responsibilities regarding their duty of candor to the USPTO, as well as any other relevant rules and/or laws including the best mode requirement.

Questions pertaining to substantive issues associated with the application should be addressed with me, while administrative issues associated with the application should be addressed with Theresa Boyce. Please be sure that all communications associated with the application, including billing statements and the application itself bear the above-referenced disclosure number.

Please send a substantially complete and final draft of the application to me along with a completed Nortel Networks Outsource's Patent Application Checklist at least 10 days prior to the above-referenced filing date to provide Nortel Networks' Intellectual Property Law Group sufficient opportunity to review the application prior to filing. You should seek to obtain the signatures on the formal papers from all inventors directly.

**Please confirm receipt of this disclosure via facsimile to the above-identified number.  
Please include your assigned reference number.**

Upon filing the application with the USPTO, immediately fax a copy of the application transmittal letter to me, so that we have a record that the application has been filed. Thereafter, please send me a hardcopy of the application as filed along with an electronic copy in Microsoft Word 6.0 readable format on a 3 1/2" floppy disk.

Should you have any questions, please call me at (919) 997-3479.

Very truly yours,



Rick Witcher

Enclosures:   Invention Disclosure No.: 16076RO  
                  Review Summary  
                  Patent Application Outsource Checklist

JRW:slw

cc:     Dany Sylvain

# **Appendix D**

Jennifer Alkove

---

From: Jennifer Rush Alkove [jrush@withrowterranova.com]  
Sent: Wednesday, July 30, 2003 2:59 PM  
To: 'sylvain@nortelnetworks.com'  
Cc: Bsw (E-mail)  
Subject: First Draft of 16076ROUS02U (our file 7000-271)

Dear Dany:

Please find attached a first draft of the above-referenced patent application. The .zip file is protected with the password that we have used in previous applications. If you have any problems opening the attached file, please let me know. Please review the application and drawings carefully for accuracy and completeness, making any changes, additions, or corrections, if any, directly on the application (or electronically with changes tracked).

Please recall that the application must clearly explain the best mode of practicing the invention for which protection is desired. Also, the application must explain to an individual of ordinary skill in the art how to make and use the invention. After reviewing the application, please forward any comments to Ben Withrow and me. We will then send you a revised draft of the application, along with formal paperwork prepared for your signature. After receipt of the signed paperwork and approval from Nortel's legal department, we will file the application.

Please do not hesitate to contact Ben Withrow or me should you have any questions regarding the application. Thank you for allowing us to be of service to you and for your prompt attention to this matter.

Best regards,

Jennifer Rush Alkove  
Withrow & Terranova, P.L.L.C.  
201 Shannon Oaks Circle, Suite 200  
Cary, NC 27511  
Ph: (919) 654-4520  
Fax: (919) 654-4521

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16076ROUS02U  
First Draft.zip [...]

# **Appendix E**

Nortel Case Status									
Matter ID	Nortel Ref	Date of Letter & Fax Confirm	First draft sent	First draft received back	Final draft sent (JP Law)	Final draft comments received back (JP Law)	Formal paperwork sent	Formal paperwork received back	Actual filing date (Prov.)
7000-271	16076ROUS02U	6/23/2003	7/30/2003	8/21/2003	8/25/2003	10/23/2003	8/25/2003	8/29/2003	10/24/2003 (5/21/2003)